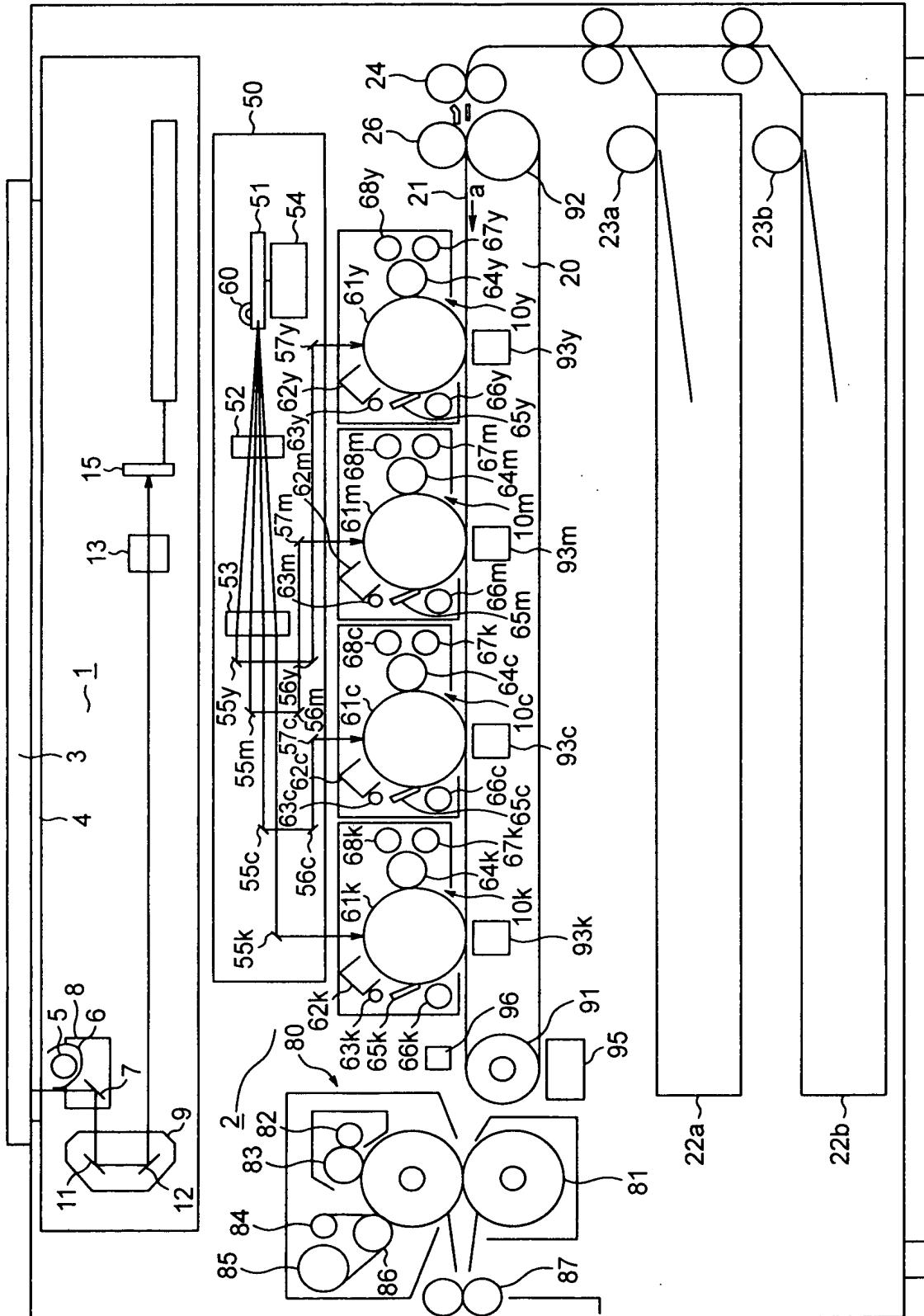


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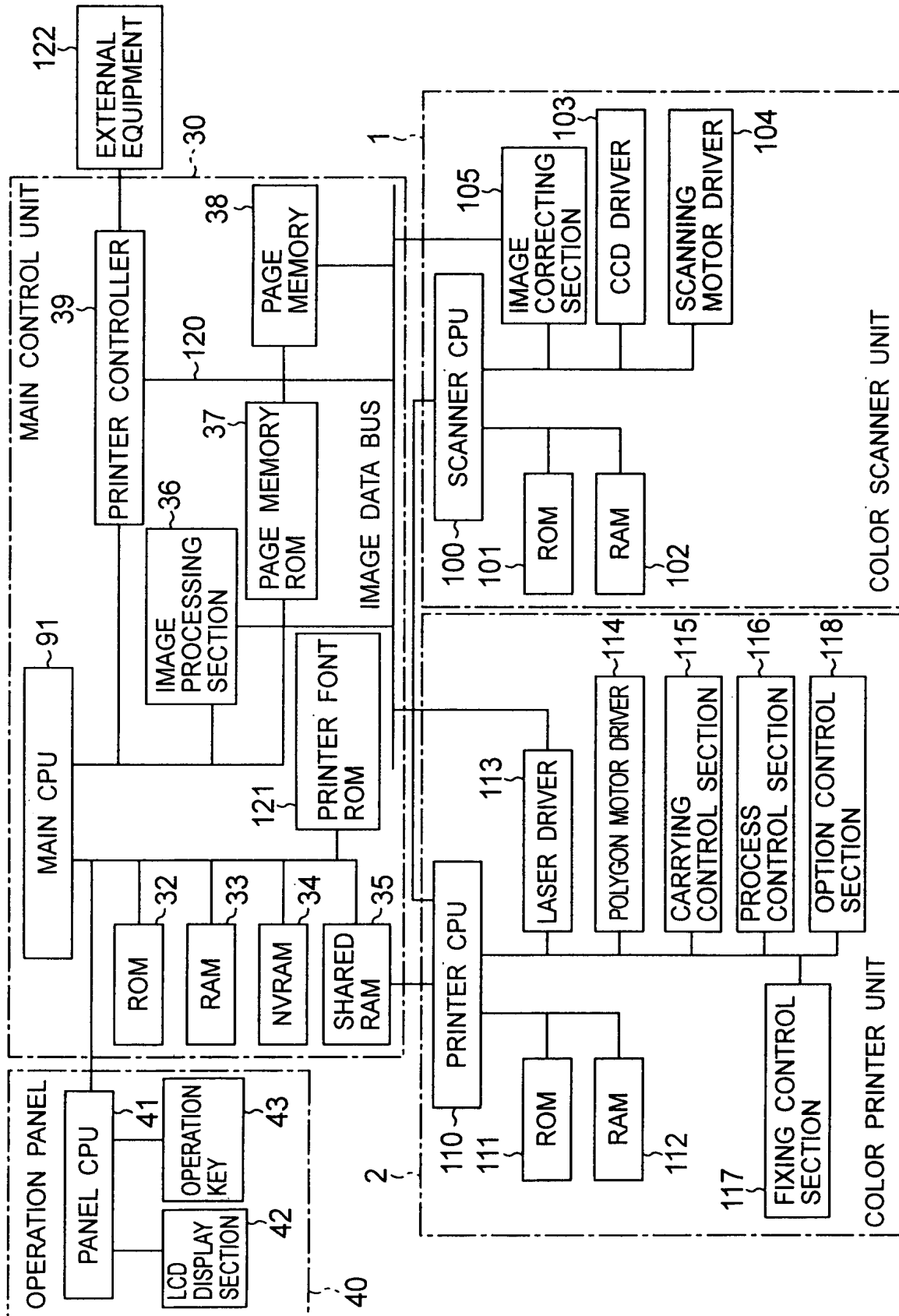


FIG. 2

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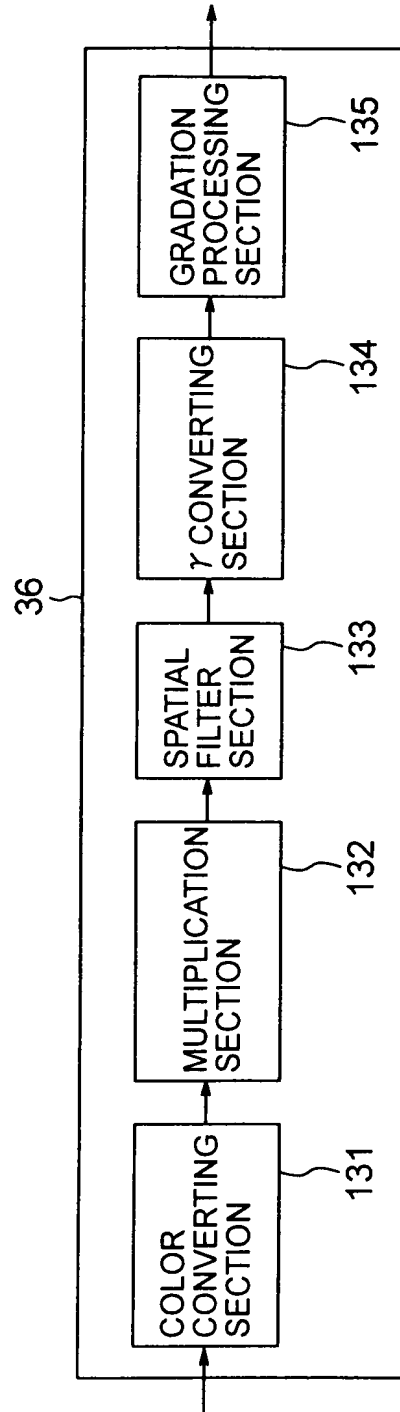


FIG. 3

FIG. 3

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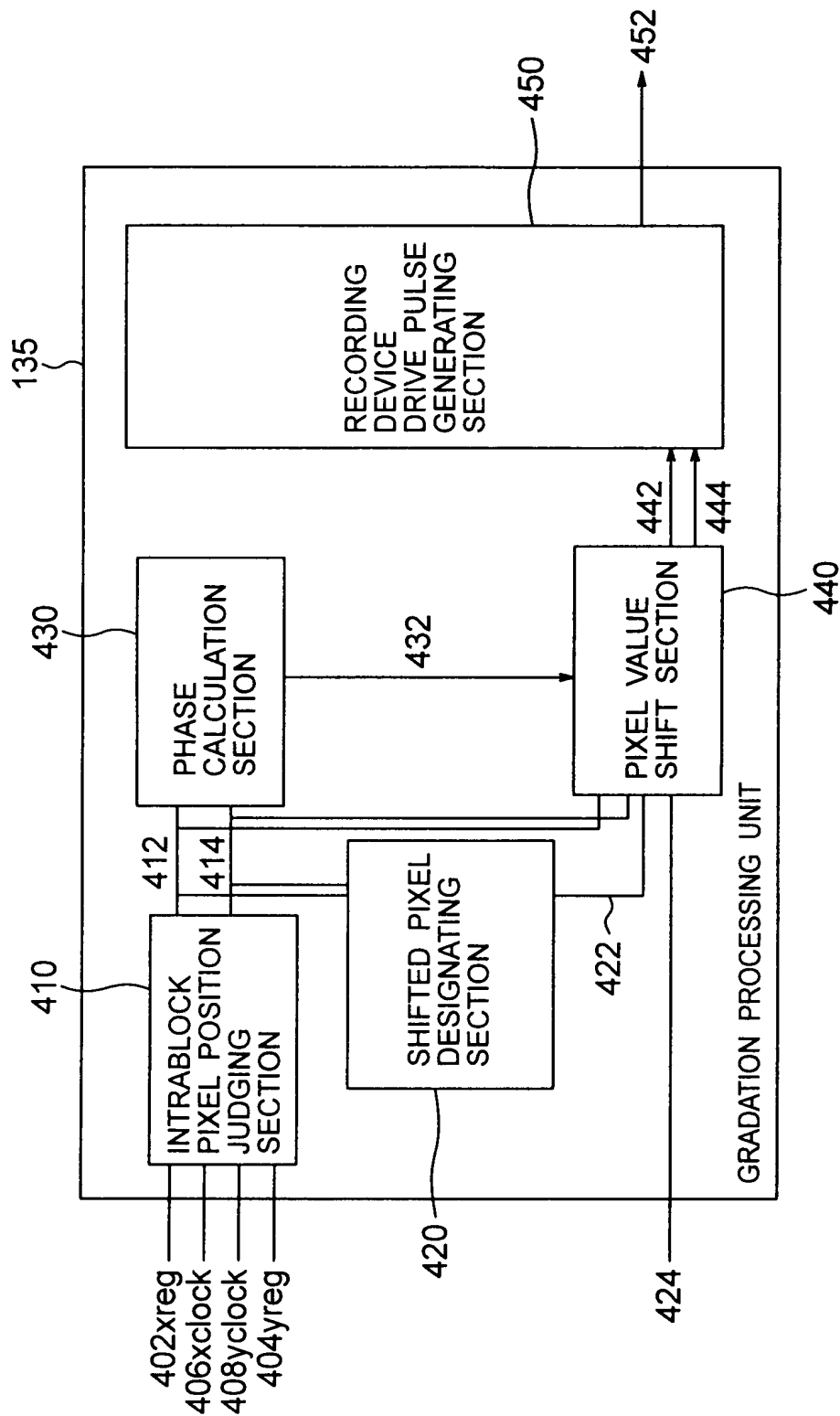


FIG. 4

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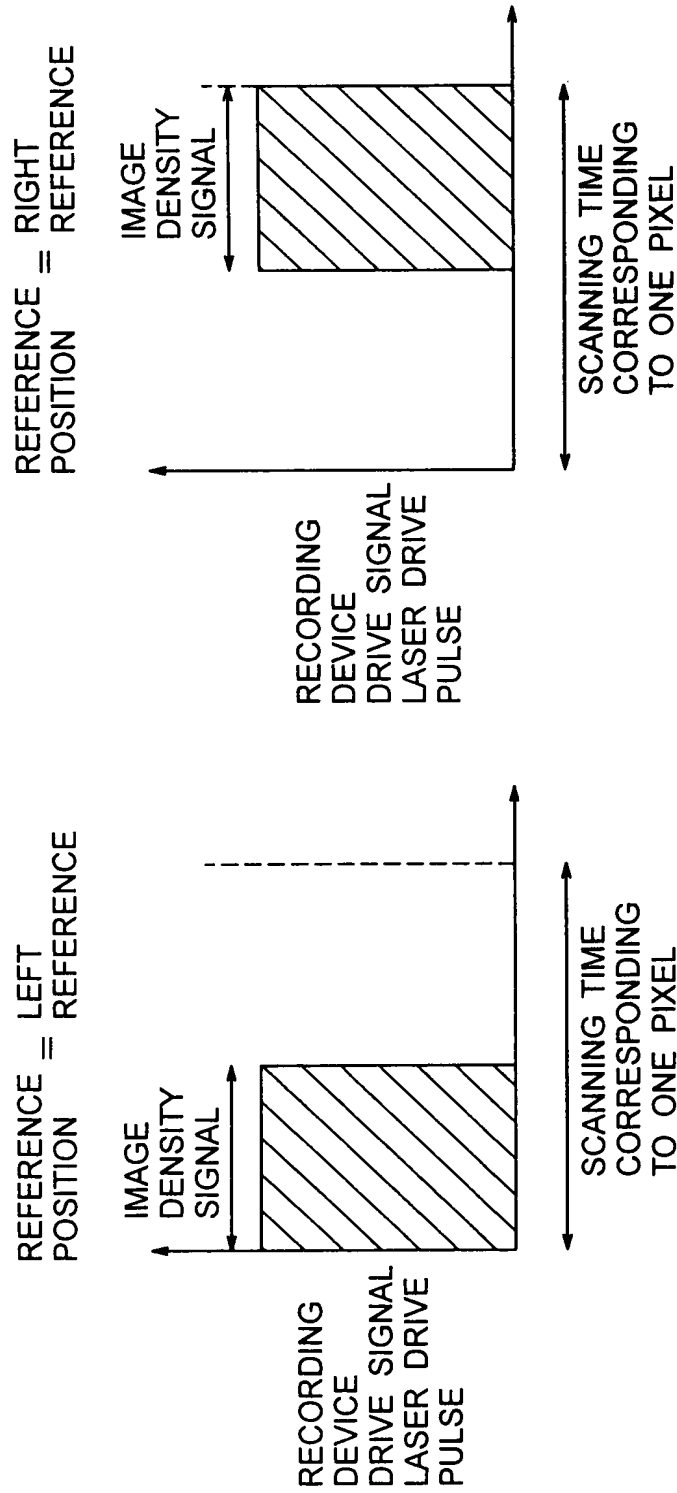


FIG. 5B

FIG. 5A

FIG. 5A

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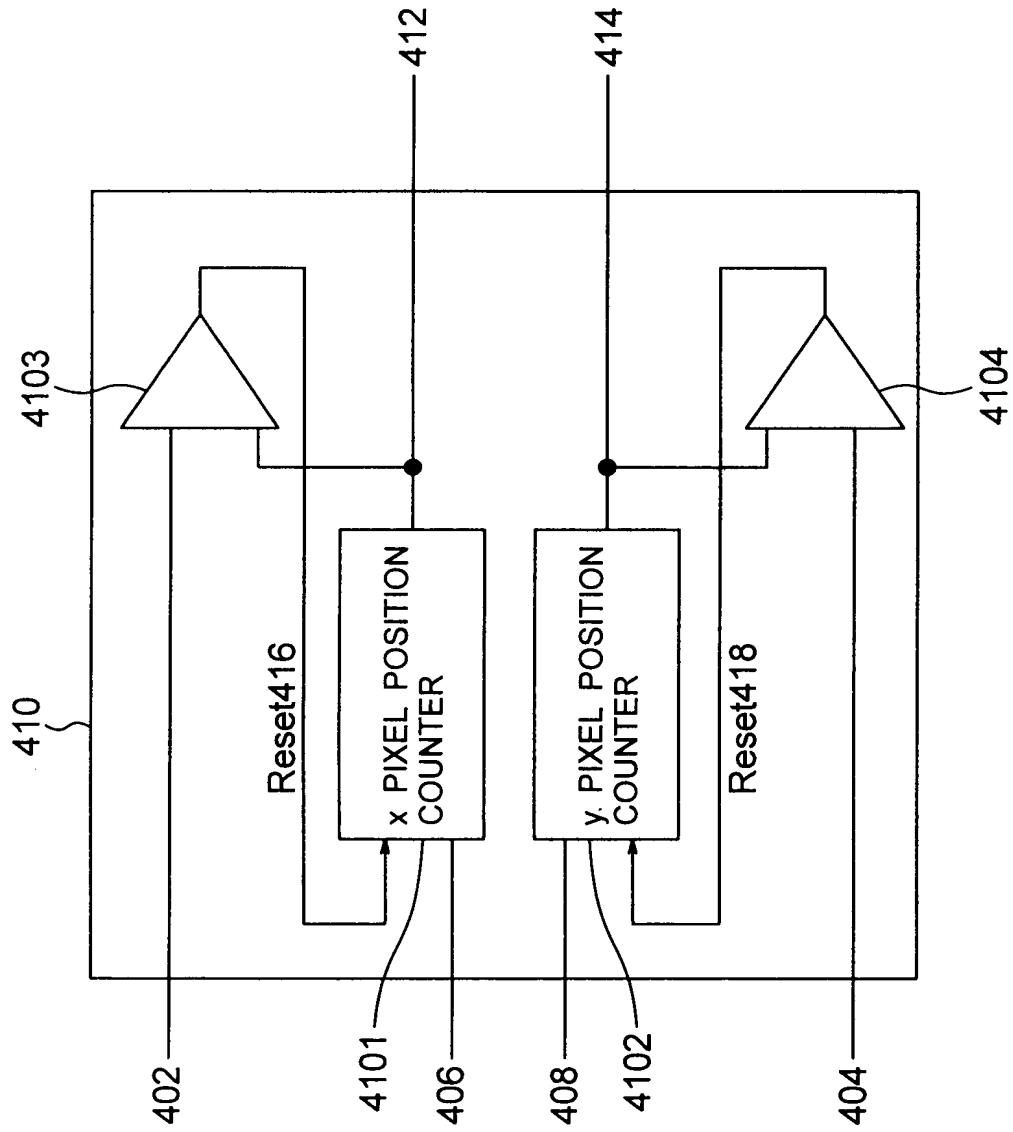


FIG. 6

FIG. 6 is a block diagram of the image processing apparatus 100.

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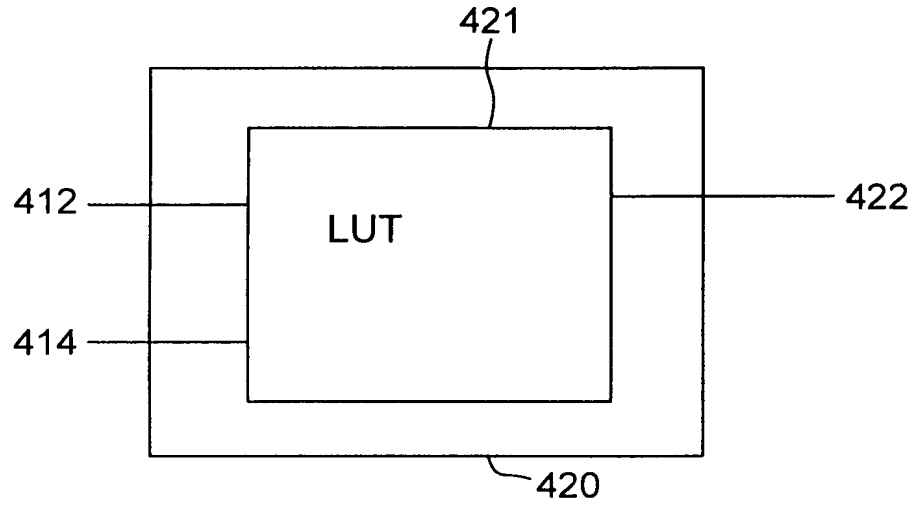


FIG. 7

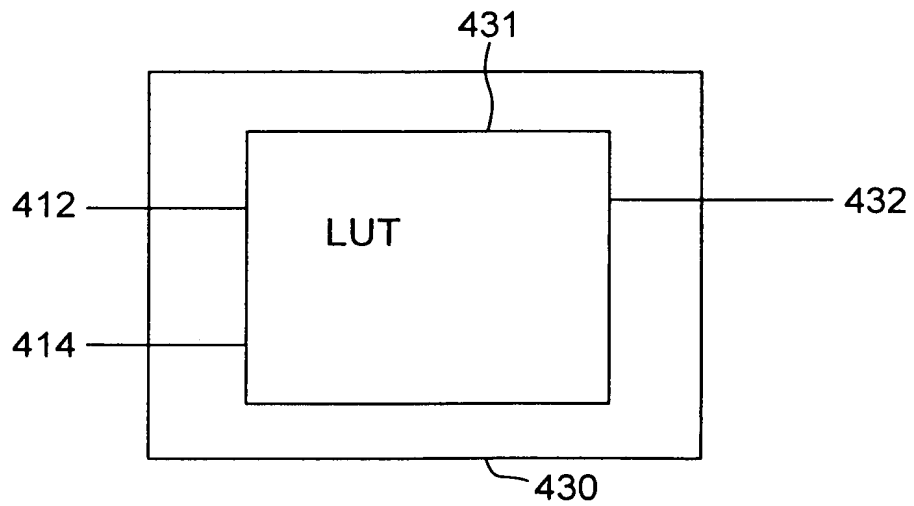


FIG. 8

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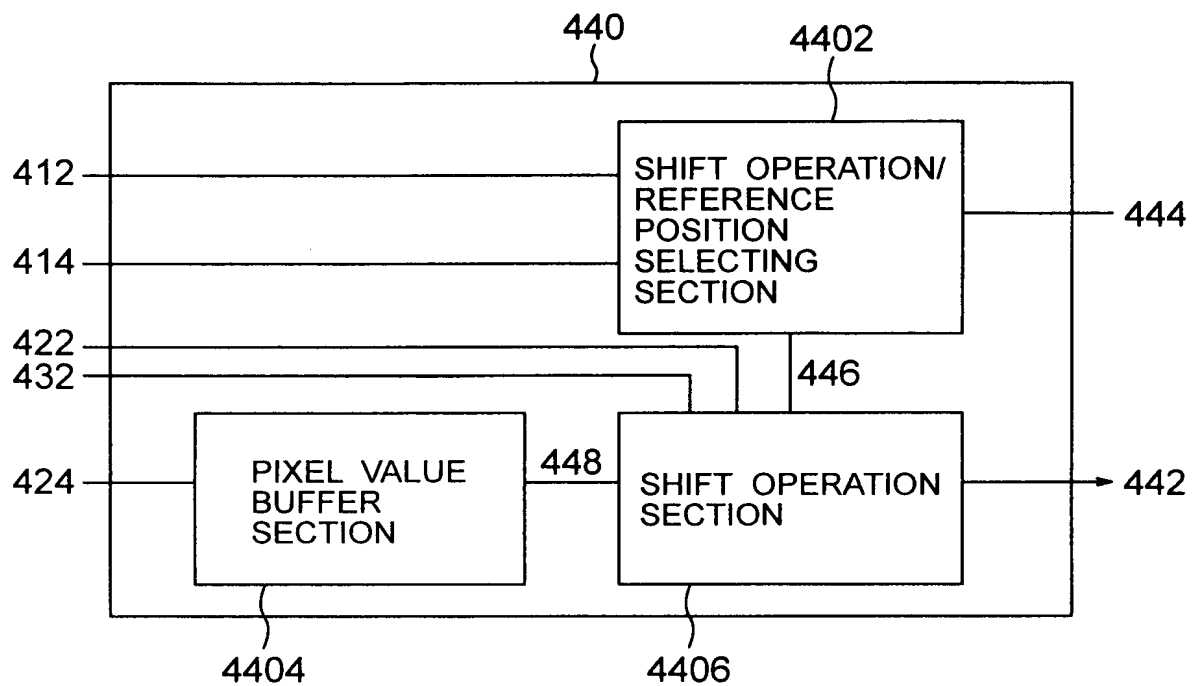


FIG. 9

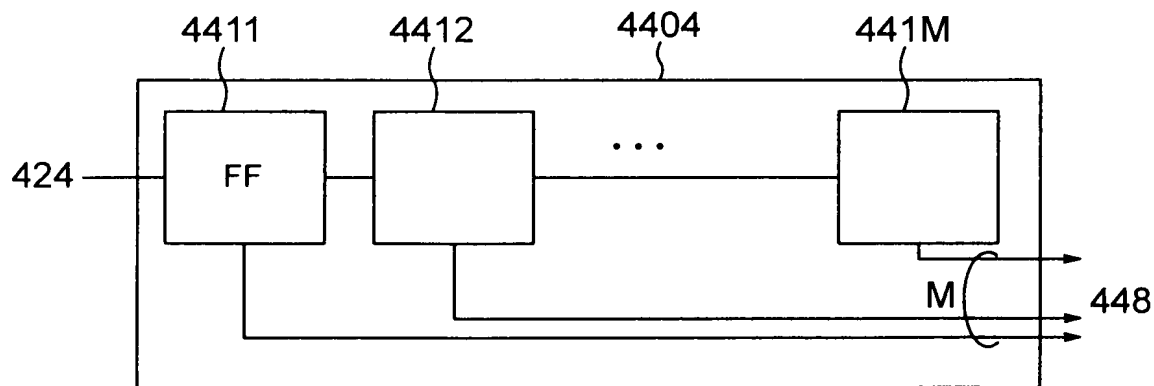


FIG. 10

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FIG. 11

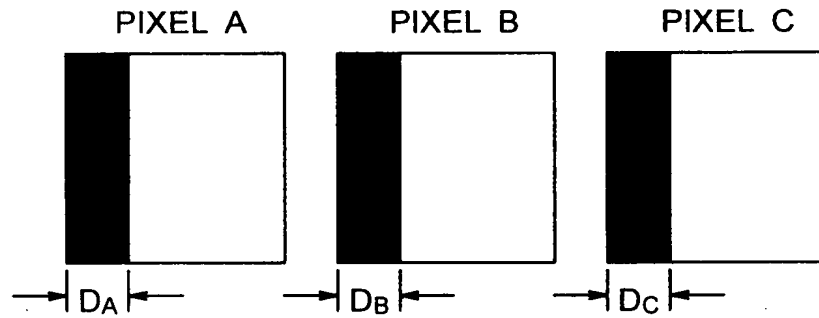


FIG. 12

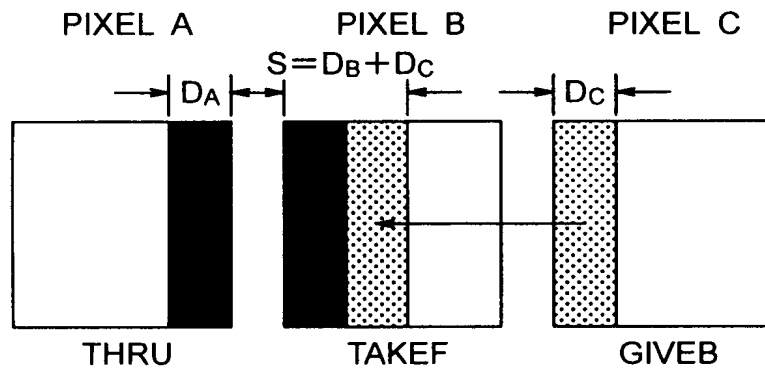


FIG. 13A

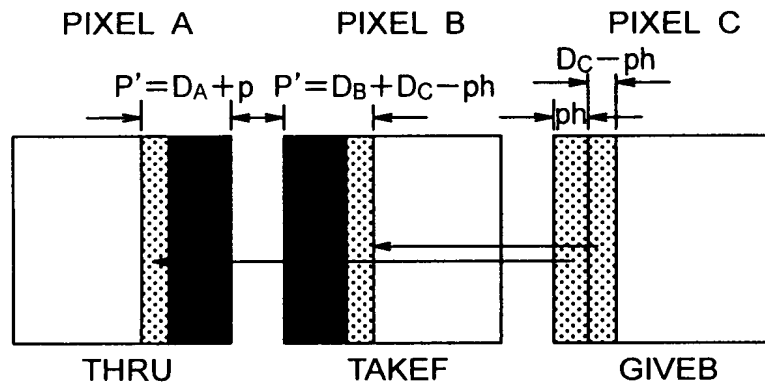
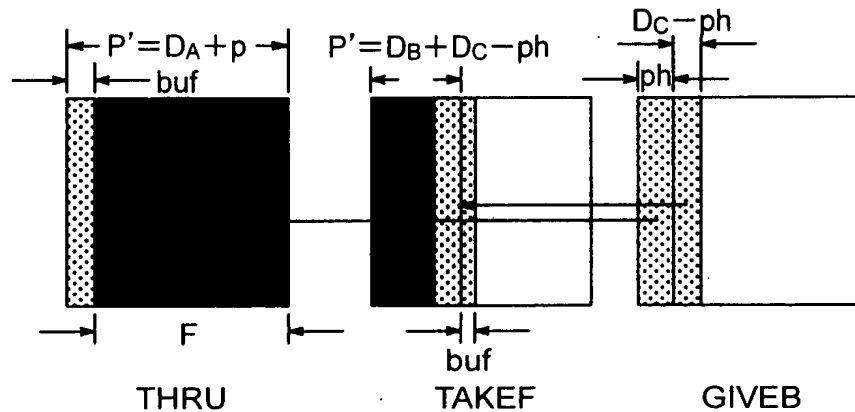


FIG. 13B



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FIG. 14

OPERATION NAME	PIXEL VALUE OF PIXEL TO BE PROCESSED	WRITE SHIFT BUFFER VALUE	CONDITION
THRU	0	P	$Ph \geq 0$ & $Pf1 + Pf2 + P \geq xff \times 2$
	$Pf1 + Pf2 + P - xff \times 2$	$xff \times 2 - Pf1 + Pf2$	$Ph \geq 0$ & $Pf1 + Pf2 + P < xff \times 2$
	$P + Ph$	Ph	$Ph < 0$ & $Pf1 + Pf2 \geq -Ph$
	$P + Pf1 + P2$	$-Ph - (Pf1 + Pf2)$	$Ph < 0$ & $Pf1 + Pf2 < -Ph$
TAKEF	xff	$P + Pf + Pbuf - xff$	$P + Pf + Pbuf \geq xff$
GIVEB	$P + Pf + Pbuf$	0	$P + Pf + Pbuf < xff$
	Pbuf	0	

FIG. 17

OPERATION NAME	PIXEL VALUE OF PIXEL TO BE PROCESSED	WRITE SHIFT BUFFER VALUE	CONDITION
THRU	P	0	$Ph \geq 0$ & $Pf1 + Pf2 + P \geq xff \times 2$
TAKEF	xff	$P + Pf - xff$	$P + Pf \geq xff$
GIVEB	$P + Pf$	0	$P + Pf < xff$
	Pbuf	0	

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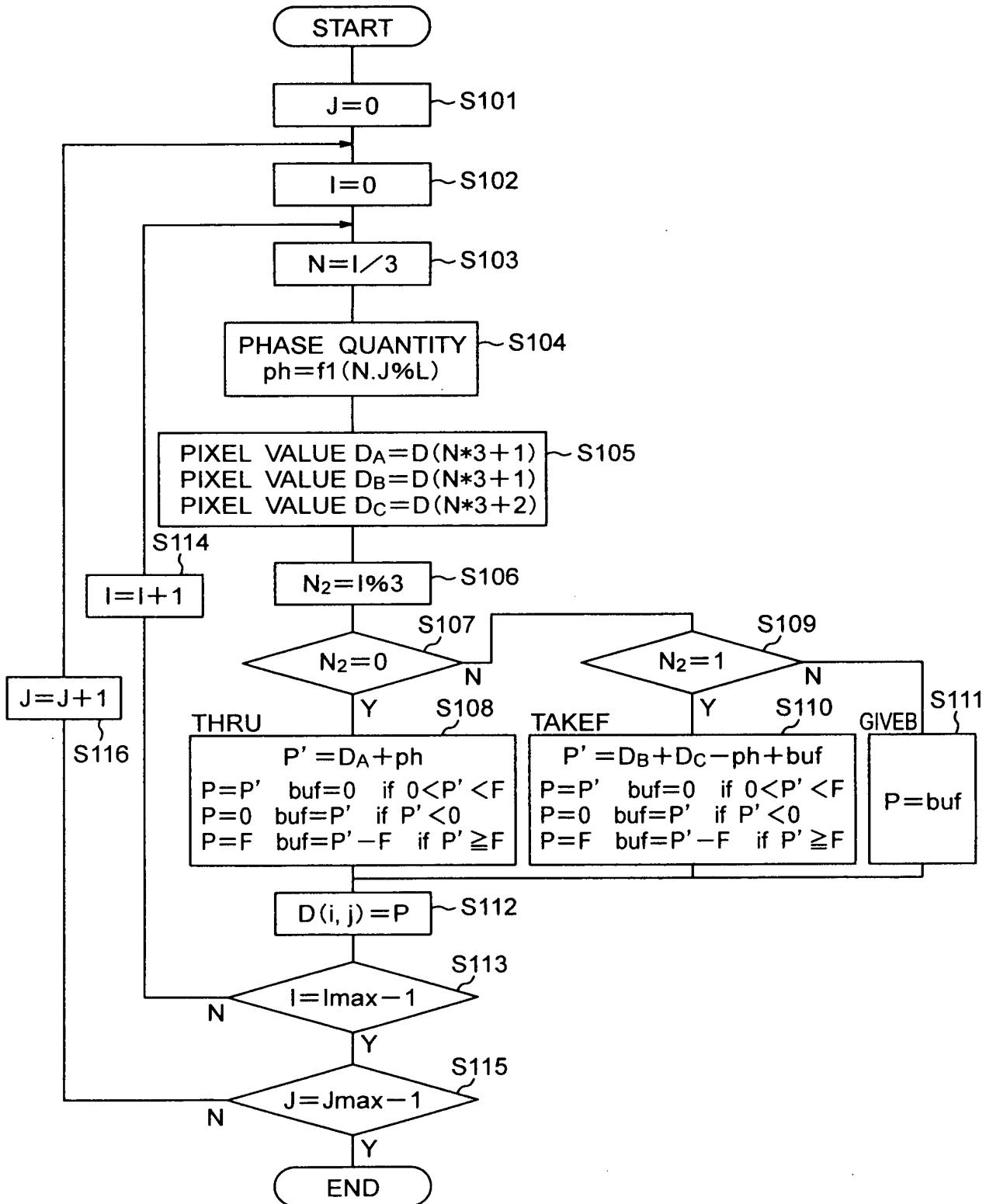


FIG. 15

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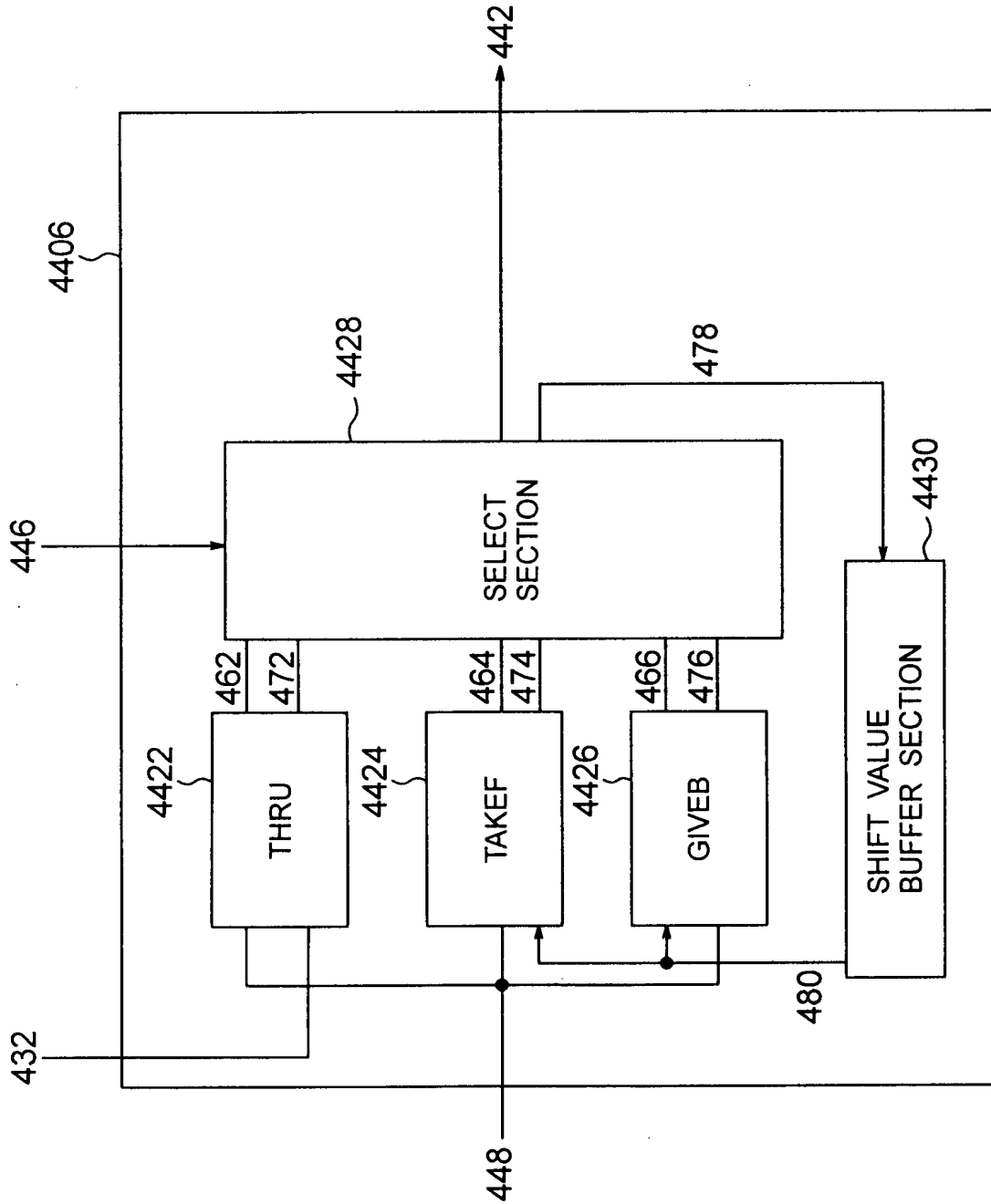


FIG. 16

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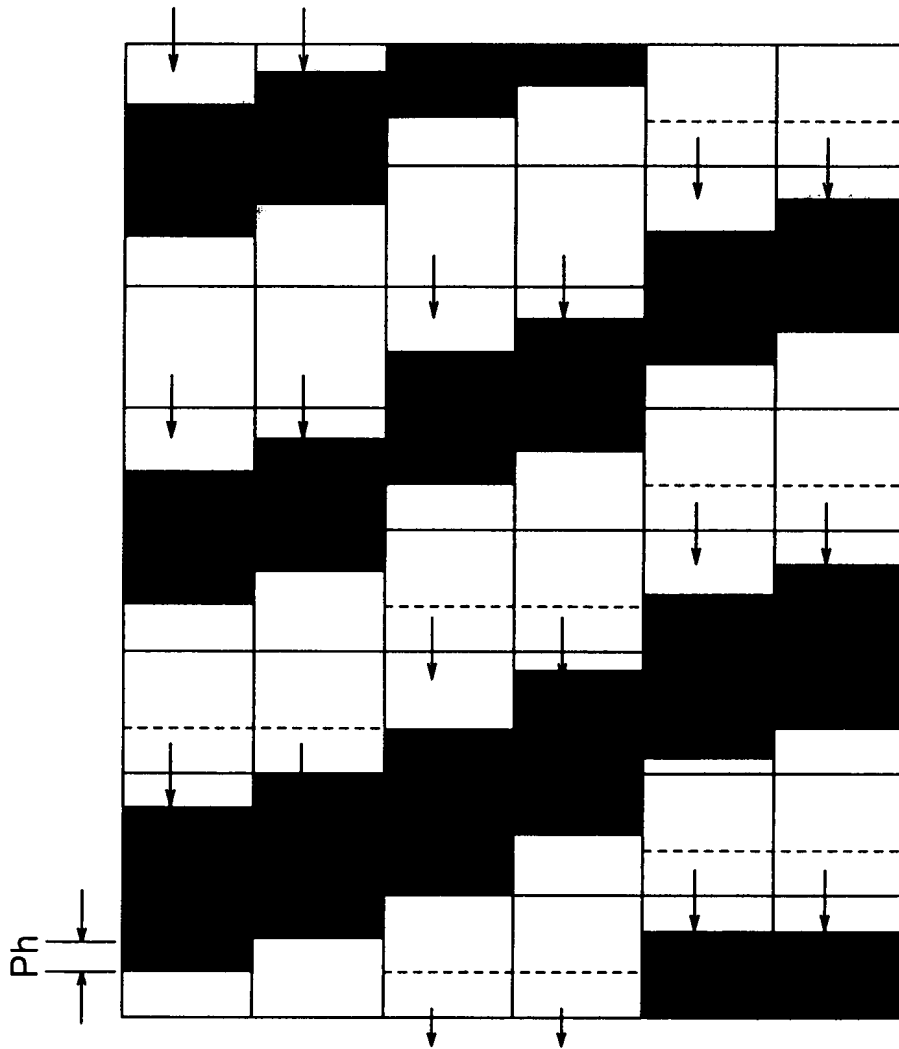


FIG. 18

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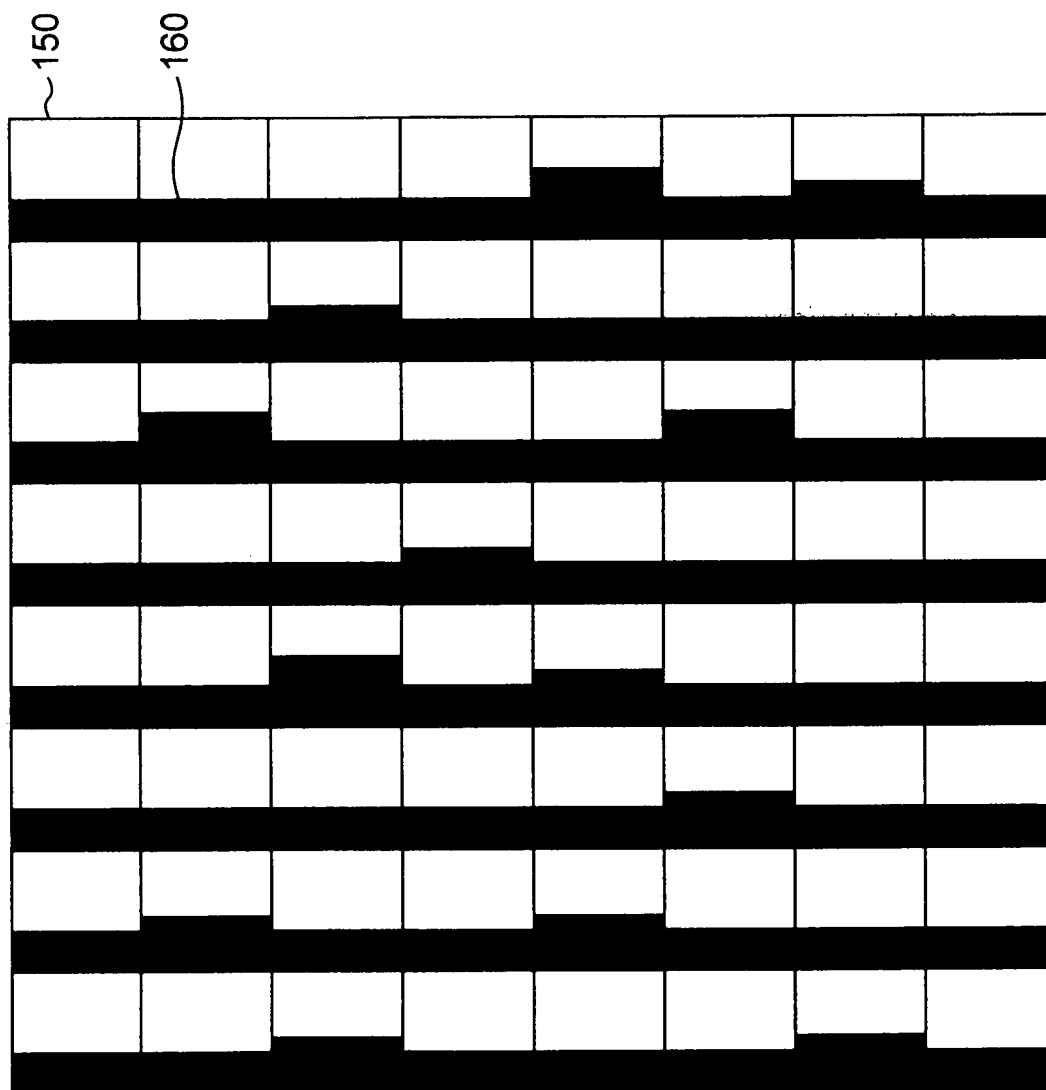


FIG. 19

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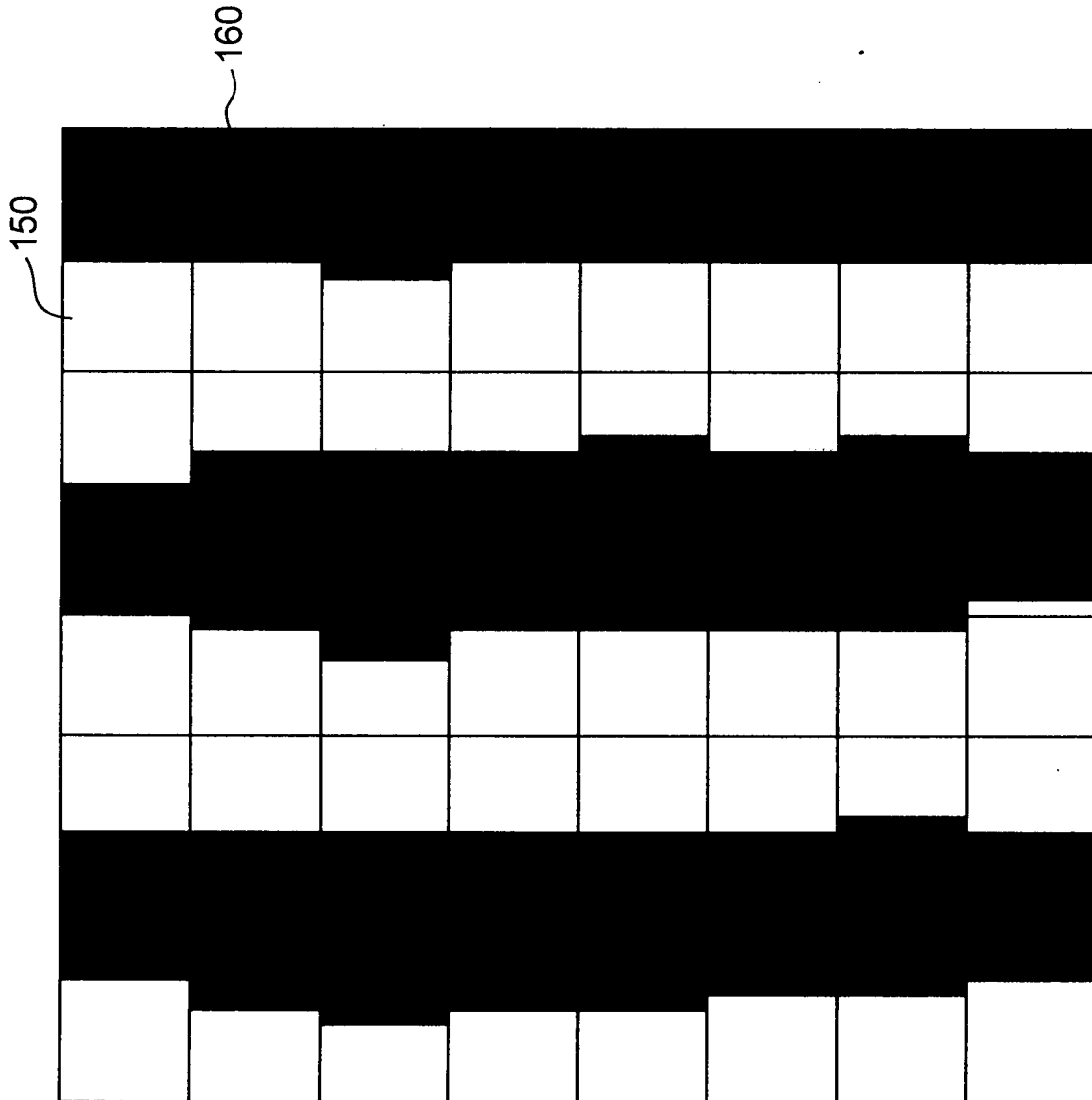


FIG. 20

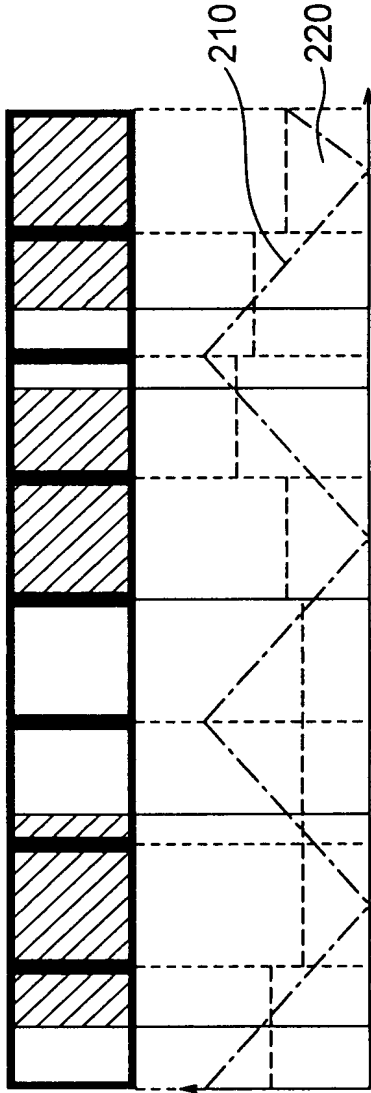
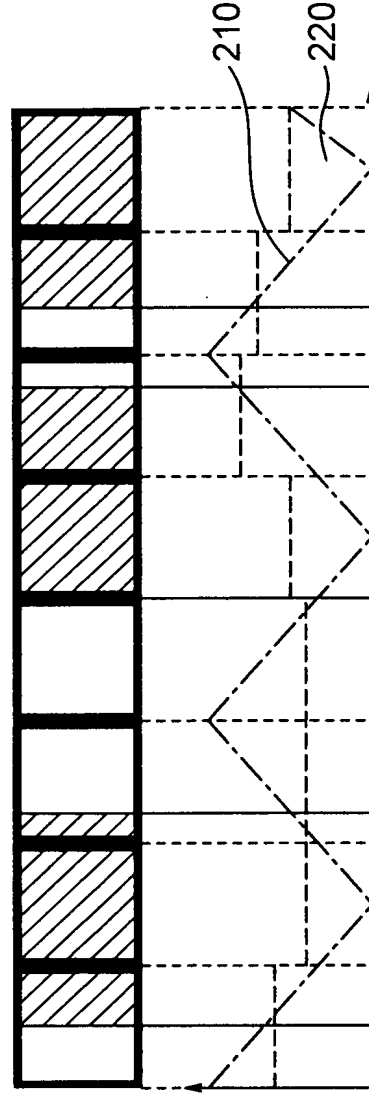
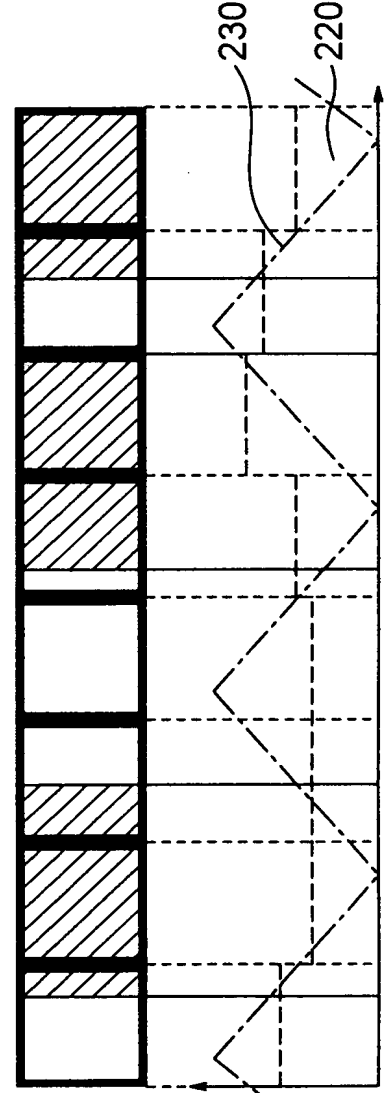


FIG. 21



1-ST LINE

FIG. 22A



2-ND LINE

FIG. 22B

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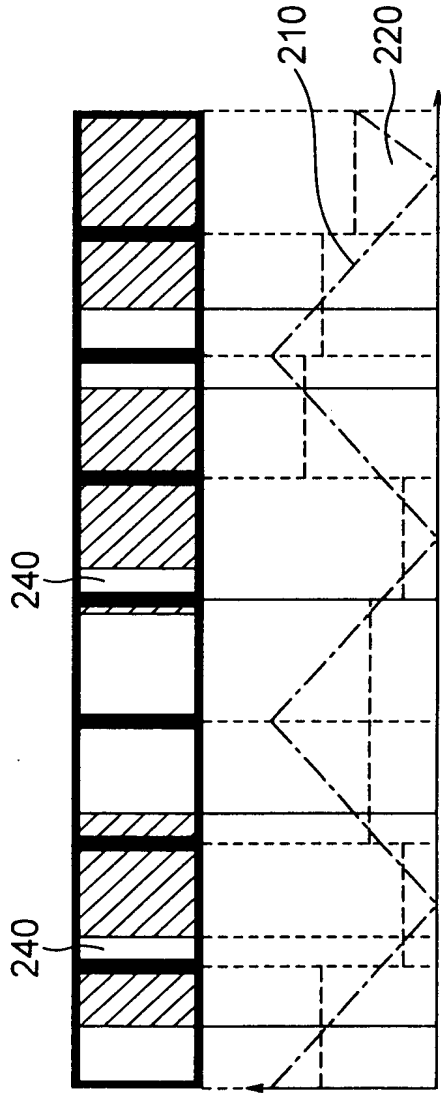


FIG. 23

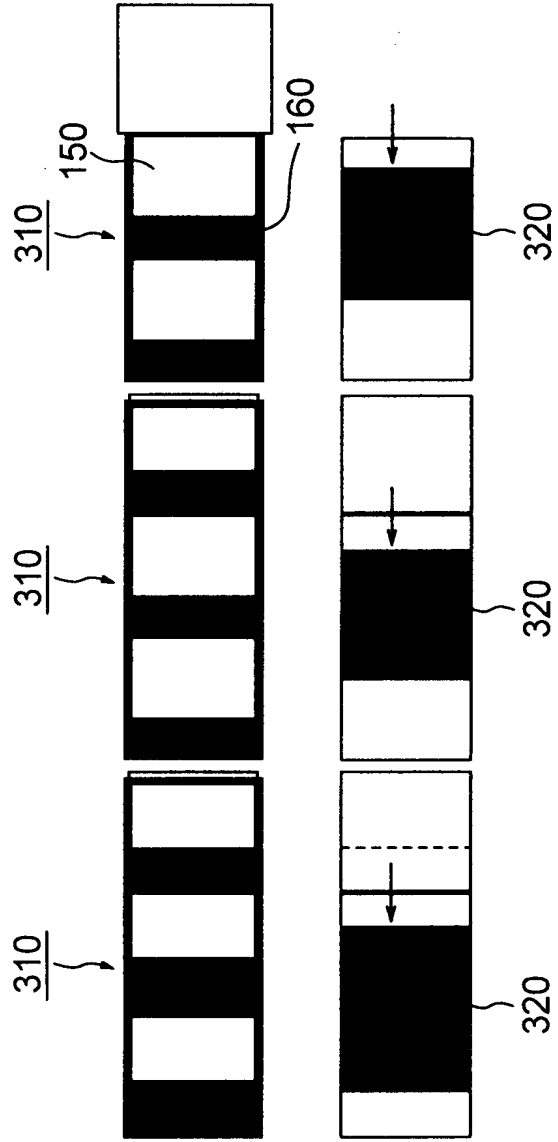


FIG. 24

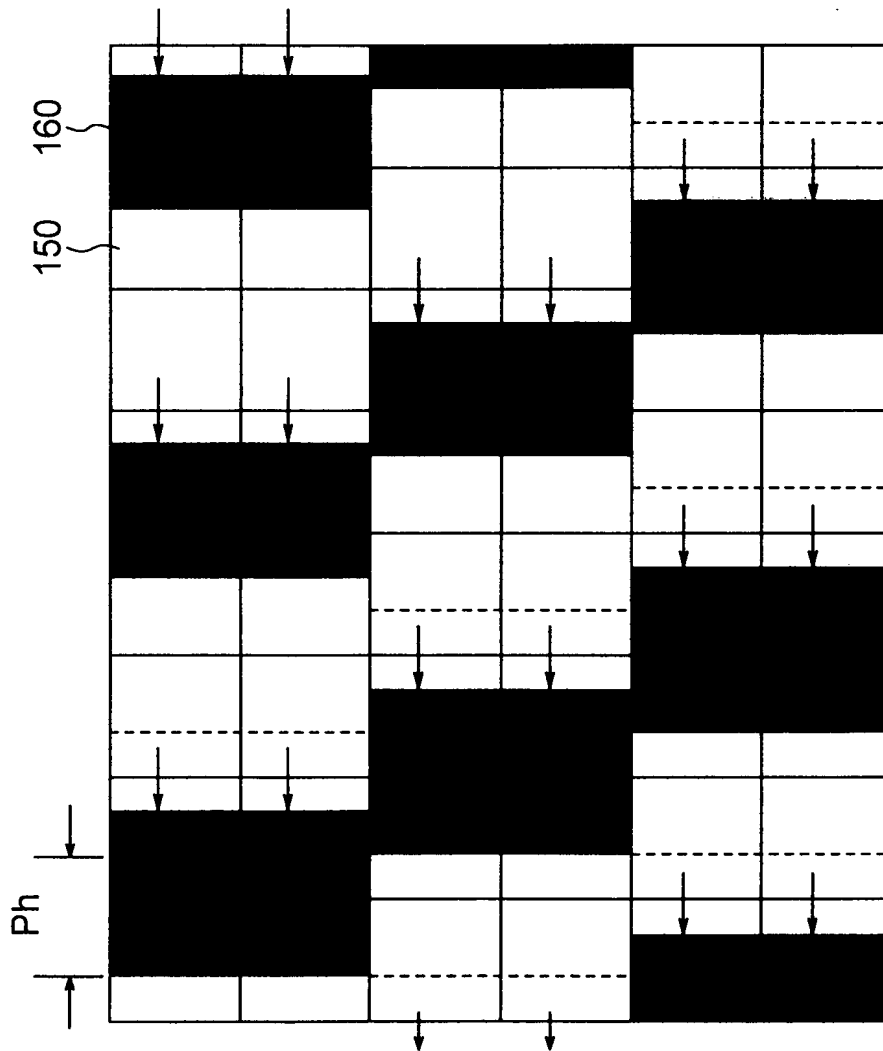


FIG. 25

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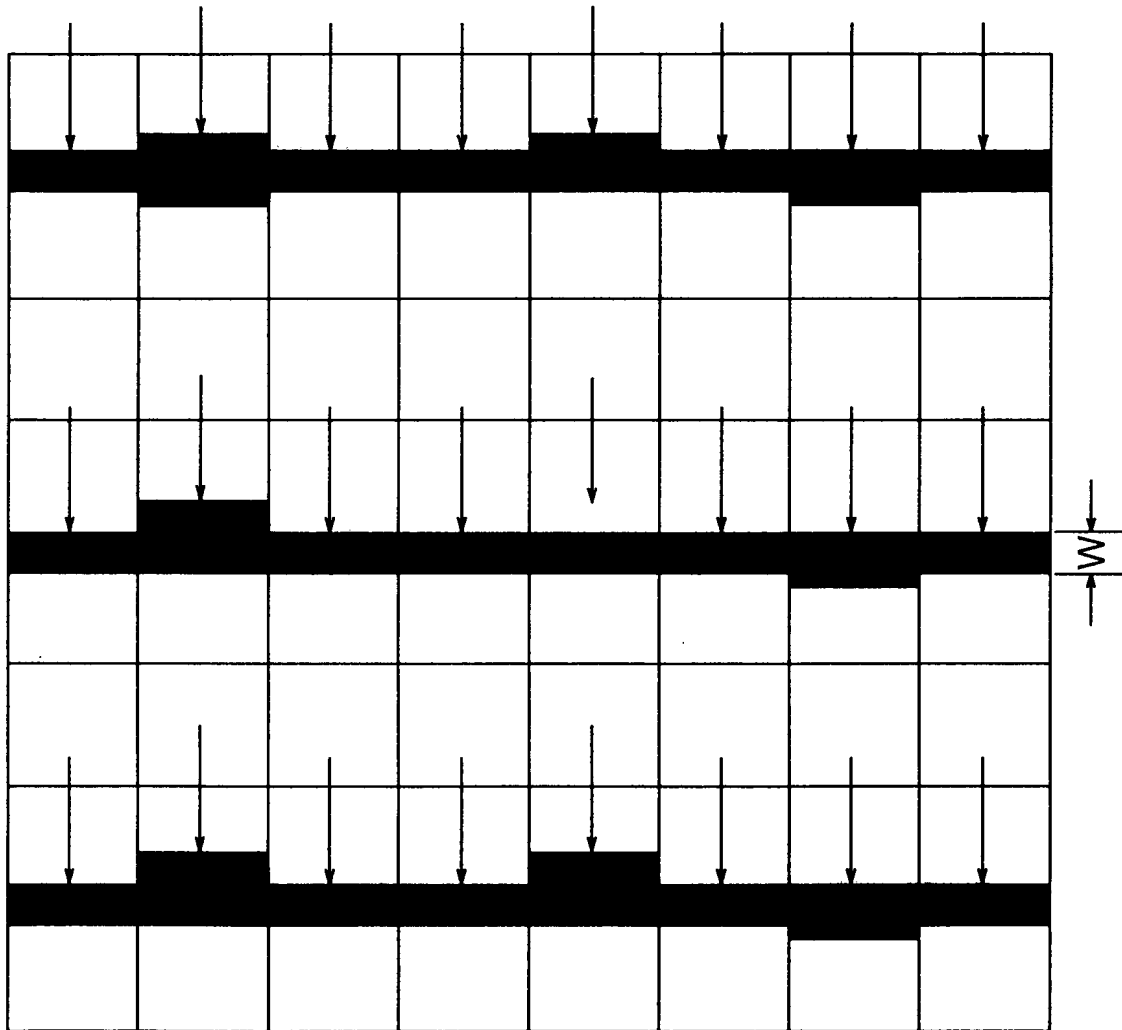


FIG. 26

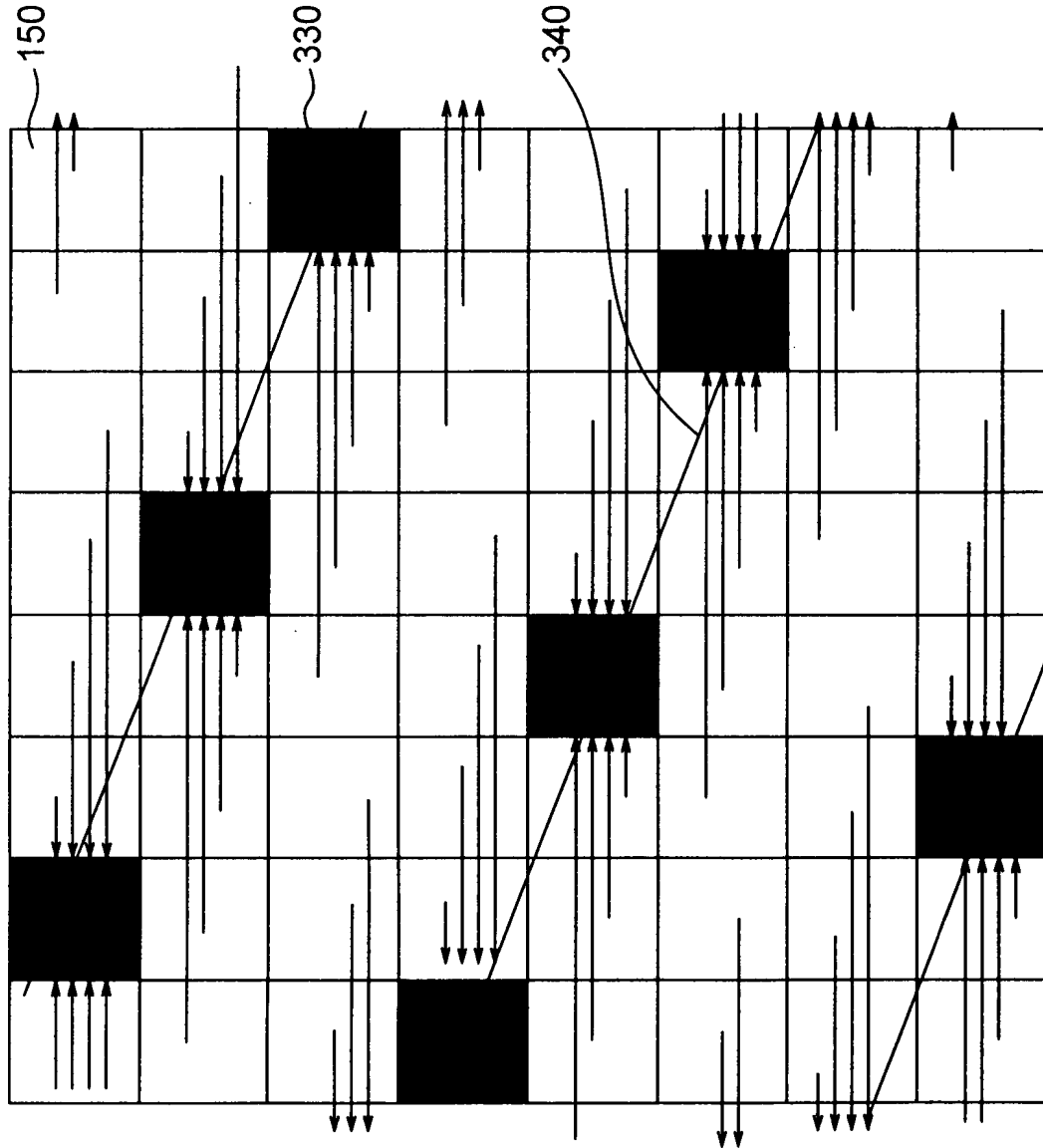


FIG. 27

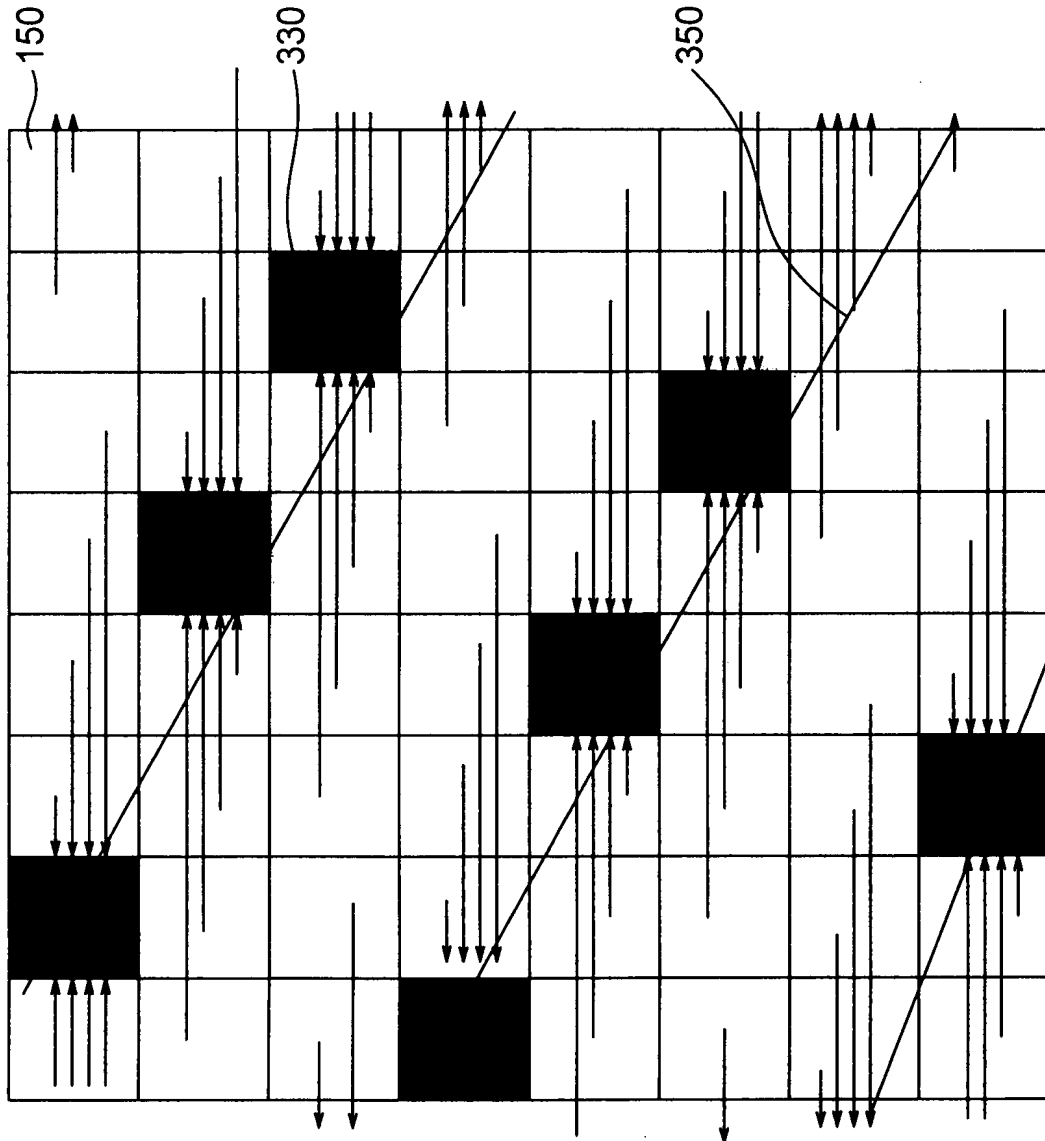


FIG. 28